

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

	•	•		-
Sheet			of	

Complete if Known	
Application Number	10/812,680
Filing Date	March 30, 2004
First Named Inventor	David C. Boyer et al.
Group Art Unit	
Examiner Name	
Attorney Docket Number	02274/6622AUS

			U.S. PATENT DOCU	MENTS	
Examiner Cite	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
Initials	No.	NumberKind Code (if known)	MM-DD-1111		or Relevant Figures Appear
173		US- 2,623,831	12/30/1952	Mikeska	
1		US- 2,673,164	03/23/1954	Hughes et al.	
-1-1		US- 2,737,509	03/06/1956	Jelling	· _
-		US- 2,937,106	05/17/1960	Carpenter et al.	
		US- 2,978,342	04/04/1961	Lefebvre	
$\neg$		US- 3,047,414	07/31/1962	Katz	
1		US- 3,085,891	04/16/1963	Butter	
1		US- 3,096,191	07/02/1963	Pitchford	
		US- 3,096,192	07/02/1963	Pitchford	
1		US- 3,108,971	10/29/1963	Mertens	
1-		US- 3,129,106	04/14/1964	Katz	
+	$\vdash$	US- 3,347,690	10/17/1967	Galvin et al.	
1	$\vdash$	US- 3,861,933	01/21/1975	Doi	
1		US- 3,928,061	12/23/1975	Hellsten et al.	
777		US- 3,963,509	06/15/1976	Doi et al.	

		FOREIG	EN PATENT DOCU	JMENTS		
Examiner Initials	Cite No.	Foreign Patent Document  Country Code-Number-Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т
	+		•		· · · · · · · · · · · · · · · · · · ·	<b></b> _
	1 1				<u> </u>	┼
						+
	_					+
	1-1				<u> </u>	

<u> </u>		Date	1.1.5
Examiner	NAA 0	Considered	1215/05
Signature	DM Brusman	Completion	



				Complete if Known		
			PTO	Application Number	10/812,680	
1	Substitute for form 1449A/PTO  INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (Use as many sheets as necessary)  Sheet of	LOSURE	Filing Date	March 30, 2004		
			First Named Inventor	David C. Boyer et al.		
,	0111121112111			Group Art Unit		
	(Use as many shee	ts as nece	essary)	Examiner Name		
Sheet		of		Attorney Docket Number	02274/6622AUS	

	_	<del></del>	U.S. PATENT DOCU	MENTS .	
Examiner Cite	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
	NO.	NumberKind Code (if known)	MIN-DD 1112		or Relevant Figures Appea
133		US- 4,036,661	07/19/1977	Graf et al.	
1		US- 4,038,096	07/26/1977	Graf et al.	
		US- 4,038,102	07/26/1977	Hellsten et al.	
	<b>†</b>	US- 4,173,489	11/06/1979	Crawford et al.	
	t	US- 4,383,081	05/10/1983	Grossi et al.	
<del> </del>	<b>†</b>	US- 4,430,127	02/07/1984	Dalter et al.	
1		US- 4,430,465	02/07/1984	Abbott	
1	1	US- 4,542,068	09/17/1985	Whichard	
1	<u> </u>	US- 4,543,158	09/24/1985	Bondoc et al.	
1	1	US- 4,554,769	11/26/1985	Fujii et al.	
		US- 4,567,079	01/28/1986	Canfield et al.	
1	1	US- 4,701,070	10/20/1987	Jelling	
		US- 4,701,484	10/20/1987	Chang et al.	
1	1	US- 4,717,614	01/05/1988	Bondoc et al.	
A		US- 4,721,529	01/26/1988	Mullins	
773	1	US- 4,724,003	02/09/1988	Treybig et al.	

	FOREIGN PATENT DOCUMENTS						
Examiner Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages	Т		
Initials	No.	Country Code-Number-Kind Code (if known)	MM-DD-YYYY	Applicant of Cited Document	or Relevant Figures Appear		
						<del> </del>	
	1					-	
	$\bot$			ļ		-	
	1 1	t		1			

Examiner Signature  OM Brushen	Date Considered	1215/05
--------------------------------	--------------------	---------



				Complete if Known		
	Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number	10/812,680		
,			LOSURE	Filing Date	March 30, 2004	
				First Named Inventor	David C. Boyer et al.	
				Group Art Unit		
	(Use as many shee	ets as nece	ssary)	Examiner Name		
Sheet		of		Attorney Docket Number	02274/6622AUS	

	_		U.S. PATENT DOCU	IMENTS .	
Examiner Cite Initials No.		Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages
	No.	NumberKind Code (if known)	MM-DD-YYYY		or Relevant Figures Appear
102		US- 4,743,304	05/10/1988	Gilmore et al.	
7		US- 4,755,545	07/05/1988	Lalwani	
		US- 4,765,839	08/23/1988	Treybig et al.	
		US- 4,781,490	11/01/1988	Jelling	
		US- 4,786,329	11/22/1988	Chang et al.	
		US- 4,789,402	12/06/1988	Kostusyk	
		US- 4,795,661	01/03/1989	Bondoc et al.	
		US- 4,806,166	02/21/1989	Schilling et al.	
	<u> </u>	US- 4,824,606	04/25/1989	O'Lenick, Jr. et al.	•
		US- 4,825,616	05/02/1989	Bondoc et al.	
	1	US- 4,835,929	06/06/1989	Bondoc et al.	
		US- 4,836,857	. 06/06/1989	Hopkins	
		US- 4,839,404	06/13/1989	Chang et al.	
10		US- 4,851,500	07/25/1989	Lalwani et al.	
<del>- U)</del> -		US-			

	FOREIGN PATENT DOCUMENTS							
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т		
	T							
	1 . 1					<u> </u>		

Examiner Signature  OM Brusson  Considered  12/1/05
-----------------------------------------------------



-				Complete if Known			
	Substitute for form 1449A/PTO INFORMATION DISCLOSURE			Application Number	10/812,680		
1				Filing Date	March 30, 2004		
	STATEMENT BY APPLICANT  (Use as many sheets as necessary)		First Named Inventor	David C. Boyer et al.			
,				Group Art Unit			
			гу)	Examiner Name			
Sheet		of		Attorney Docket Number	02274/6622AUS		

			U.S. PATENT DOCU	MENTS	
Examiner Cite		Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages
Initials	No.	NumberKind Code (if known)	MM-DD-1111		or Relevant Figures Appear
103		US- 4,867,750	09/19/1989	O'Lenick Jr., et al.	
1		US- 4,886,554	12/12/1989	Woodring et al.	
11		US- 4,895,600	01/23/1990	Chang et al.	
	-	US- 4,900,589	02/13/1990	Montgomery	
1		US- 4,917,764	04/17/1990	Lalwani et al.	
		US- 4,923,712	05/08/1990	Gladfelter et al.	
	•	US- 4,923,913	05/08/1990	Chich et al.	
1		US- 4,992,315	02/12/1991	Zickell et al.	
1		US- 5,011,726	04/30/1991	Chich et al.	
1		US- 5,017,230	05/21/1991	Hopkins et al.	
		US- 5,055,135	10/08/1991	Grube et al.	·
1 1		US- 5,110,674	05/05/1992	Grube et al.	
1		US- 5,110,726	05/05/1992	Ogden	
13		US- 5,164,002	11/17/1992	Ballenger, Jr. et al.	

	FOREIGN PATENT DOCUMENTS							
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т		
	1 1					┼		
	<del> </del>				<del> </del>	+-		
	+		<del></del>					

Examiner Signature  OM Brushum  Consi	idered 13/5/05
---------------------------------------	----------------



		Complete if Known		
Substitute for form 1449A/PTO		Application Number	10/812,680	
TNEODMA	TION DISCLOSURE	Filing Date	March 30, 2004	
	ENT BY APPLICANT	First Named Inventor	David C. Boyer et al.	
GIAIE	MI DI MILDIOLE (	Group Art Unit		
(Use as	many sheets as necessary)	Examiner Name		
Sheet	of	Attorney Docket Number	02274/6622AUS	

Examiner	Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages
Initials	No.	NumberKind Code (if known)	MM-DD-YYYY		or Relevant Figures Appear
TR		US- 5,224,990	07/06/1993	Vicenzi et al.	
7		US- 5,234,494	08/10/1993	Swatzky et al.	
1		US- 5,267,809	12/07/1993	Allan	
	1	US- 5,312,483	05/17/1994	Swatzky et al.	
1	1	US- 5,362,314	11/08/1994	Vicenzi et al.	
	1	US- 5,511,899	04/30/1996	Pavelek, II	
1	$\dagger$	US- 5,512,093	04/30/1996	Huege et al.	
1		US- 5,519,073	05/21/1996	van der Werff et al.	
+	1	US- 5,545,278	08/13/1996	Chen et al.	
+	† —	US- 5,558,702	09/24/1996	Chatterjee et al.	
1	1-	US- 5,578,118	11/26/1996	Shuey et al.	
1.	1	US- 5,618,132	04/08/1997	Fogg et al.	
	T	US- 5,625,117	04/29/1997	Henderson et al.	
7	1	US- 5,626,658	05/06/1997	McArdle	
13	†	US- 5,660,498	08/26/1997	Freeman	

FOREIGN PATENT DOCUMENTS							
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kird Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Cotumns, Lines, Where Relevant Passages or Relevant Figures Appear	Т	
	† †						
						↓_	
						-	
	-					╁	

Examiner	OM Bansmen	Date Considered	12/5/05
Signature	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	COIDIGCICG	<u> </u>



				Complete if Known			
	Substitute for form	n 1449A	/PTO	Application Number	10/812,680		
. 1	NFORMATION	DISC	LOSURE	Filing Date	March 30, 2004		
	STATEMENT BY APPLICANT		First Named Inventor	David C. Boyer et al.			
			•	Group Art Unit			
	(Use as many shee	ts as nec	essary)	Examiner Name			
Sheet		of	<u> </u>	Attorney Docket Number	02274/6622AUS		

			U.	S. PATENT DOCUM	MENTS	
Examiner Cite No.		Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages
		Number Kind Code	(if known) .			or Relevant Figures Appear
133		US- 5,6	67,576	09/16/1997	Chatterjee et al.	
1		US- 5,6	67,577	09/16/1997	Chatterjee et al.	
		US- 5,6	67,578	09/16/1997	Schilling	
		US- 5,6	70,562	09/23/1997	Schilling	
		US- 5,7	72,749	06/30/1998	Schilling et al.	
		US- 5,7	76,234	07/07/1998	Schilling	
	$\dagger$	US- 5,8	20,663	10/13/1998	Miller et al.	
		US- 6,0	27,558	02/22/2000	Little et al.	
		US- 6,2	67,809	07/31/2001	Boyer et al.	
V	· ·	US- 6,3	61,591 B1	03/26/2002	Boyer et al.	
773		US- 6,3	83,365 B1	05/07/2002	Boyer et al.	
		US-				
		US-				
		US-				
	1	US-				
		US-				

FOREIGN PATENT DOCUMENTS								
Examiner Initials	Cite No.	Foreign Patent Document  Country Code-Number-Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т		
						<u> </u>		
	-				<u> </u>			

			 	<del>, , , , , , , , , , , , , , , , , , , </del>
Examiner Signature	\OM	Brusher	Date Considered	12/5/05
J-8		1 31 -0-77		



	Substitute for form 1449A/PTO  INFORMATION DISCLOSURE STATEMENT BY APPLICANT			Complete if Known	•
Substitute				Application Number	10/812,680
INFO			URE	Filing Date	March 30, 2004
STATEMENT BY APPLICANT (Use as many sheets as necessary)		NT	First Named Inventor	David C. Boyer et al.	
(032 2111				Group Art Unit	
			•	Examiner Name	
Sheet		of		Attorney Docket Number	02274/6622AUS

FOREIG	N PA	TENT I	DOCUMENTS				т-
	G:	Foreign Patent Document  OfficeNumber Kind Code (if known)		Name of Patentee or	Date of Publication	Pages, Column, Lines, Where Relevant Passages or Relevant Figures Appear	T
Examiner Initials	No.			Applicant of Cited Document	of Cited Document MM-DD-YYYY		
D3			WO9856858	Schermer et al.	12/17/19		
				·		·	
						•	
-							
				·			
-							

Examiner Signature	DM Brownin	Date Considered	1215/05
-----------------------	------------	--------------------	---------

		Complete if Known		
substitute for form 1449B/PTO		Application Number	10/812,680	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Filing Date	March 30, 2004	
		First Named Inventor	David C. Boyer et al.	
(Use as many sheets a	s necessary)	Group Art Unit		
		Examiner Name		
Sheet	of	Attorney Docket Number	02274/6622AUS	

Examiner Initials	Cite No.1	Include name of the author (In CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T*
D3	·	D.G. TUNNICLIFF; Performance of antistripping additives; Association of Asphalt Paving Technologists Annual Meeting (Salt Lake City 3/17-19/1997)/Proceedings of the Association of Asphalt Paving Technologists V66:344-78 (1997), Abstract	
		J.C. PETERSON, H. PLANCHER; Model studies and interpretive review of the competitive adsorportion and water displacement of petroleum asphalt chemical functionalities on mineral aggregate surfaces; Petroleum Science and Technology (ISSN 10916466) V16 1-2:89-131 (January-February 1998); Abstract	
		SOMOGYVARI A P; ZANZOTTO L.; JEFFRIES R B; The antistripping properties of basic nitrogen in hydrocracked resid[ue]s; Fuel Science & Technology International (ISSN 0884-3759) V10 N.4-6 531-47 (May-July 1992); Abstract	
		R.C.G. HASS, E. THOMPSON, F. MEYER, G.R. TESSIER; The Role Of Additives In Asphalt Paving Technology; Proc. Assoc. Asphalt Paving Technol. V.52 PP.324-45 (1984) Abstract	
133		R.L. DUNNING, G.O. SCHULZ AND W.F. GAWRON; Control Of Stripping With Polymer Treatment Of Aggregates; Asphalt Paving Technology, v.62, J. of the Assoc. of Asphalt Paving Technologists, From The Proceedings Of Technical Sessions; Austin, Texas; March 22-24, (1993) Abstract	

Examiner Signature DM Brunsman	Date Considered	12/5/05
--------------------------------	--------------------	---------

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



<sup>&</sup>lt;sup>1</sup>Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

	Complete if Known	
Substitute for form 1449B/PTO	Application Number	10/812,680  March 30, 2004  David C. Boyer et al.
INFORMATION DISCLOSURE	Filing Date	
STATEMENT BY APPLICANT	First Named Inventor	
(Use as many sheets as necessary)	Group Art Unit	
	Examiner Name	
Sheet of	Attorney Docket Number	02274/6622AUS

OTHER PRI	OR ART -	NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.4	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	1,3
3		H.W. BUSCHING, J.M. ALEWINE, S.N. AMIRKHANIAN, J.L. BURATI and M.O. FLETCHER; Effects Of Selected Asphalts And Antistrip Additives On Tensile Strength Of Laboratory-Compacted Marshall Specimens A Moisture Study; Proc. Assoc. Asphalt Paving Technol. V.55 PP.120-48 Assoc. Asphalt Paving Technol. Tech. Sessions (Clearwater Beach, FLA. 2/17-19/86) (1986) Abstract	
		T.W. KENNEDY, W.V. PING; An evaluation of effectiveness of antistripping additives in protecting asphalt mixtures from moisture damage; Association of Asphalt Paving Technologists Meeting (Seattle 3/4-6/91) Proceedings of the Association of Asphalt Paving Technologist V60 230-63 (1991), Abstract	
		Y.W. JEON, C.W. CURTIS, B.M. KIGGUNDU; An investigation of the effect of (precoating) antistripping (AnS) agents on silica adsorption of asphalt functionalities; Fuel Science and Technology International (ISSN 0884-3759) V8 N.3 241-70 (1990); Abstract	
		A.R. TARRER and V.P. WAGH; Innovative tests to predict the strength and type of asphalt-aggregate bonds; ACS Division of Petroleum Chemistry Preprints V35 N.3 361-69 (July 1990); Abstract	
D3		C. GIAVARINI and G. RINALDI; Development of new adhesion agents for asphalt cement; Ind. Eng. Chem. Res. (ISSN 0888-5885) V28 N.8 1231-36 (Aug. 1989); Abstract	

Examiner Signature DM Brusna	Date Considered	12/5/05
------------------------------	--------------------	---------

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

		Complete if Known		
Substitute for form 144	9B/PTO .	Application Number	10/812,680	
INFORMATIO	ON DISCLOSURE	Filing Date	March 30, 2004	
	BY APPLICANT	First Named Inventor	David C. Boyer et al.	
(Use as many sheets as	s necessary)	Group Art Unit		
		Examiner Name		
Sheet	of	Attorney Docket Number	02274/6622AUS	

Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
753	•	I. ISHAI, Y.A. TUFFOUR; The use of propane-precipitated asphalt (PPA) in bituminous paving mixtures; Assoc. Asphalt Paving Technol. Tech. Sessions (Reno, NV 2/23-25/88) Proc. Assoc. Asphalt Paving Echnol. V56-599-631 (1987); Abstract	
<b>P</b> >		ROHM AND HAAS COMPANY; Pave® 192 Asphalt Additive (7/99) 4 pages	
733		Morton Material Safety Data Sheet; Pave® 192 Asphalt Additive;	

Г			<del></del>		
	Examiner	$\Lambda_{A_{\bullet}}$	Λ	Date	11-108
	Signature	<i>()/</i> //	Brusman	Considered	1215100
- 1	0.8	<b>–</b> (			

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Information Disclosure Statement - Section 2. FORM 1449A/PTO (PTO/SB/08A)



the provided

<sup>&</sup>lt;sup>1</sup>Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.